

line 15, replace “, for example” with --(e.g.,--;
line 16, after “amplifiers” replace “,” with --); and after “adjusted”
~~delete “,”;~~

5 line 23, replace “which” with --that--;
line 25, replace “, in the case of which” with --where--;
line 26, after “are” insert --affected--; and
line 27, delete “affected”.

On amended page 2:

line 29, replace “, SRS,”; with --(SRS)--; and
line 32, replace “; in” with --. In--.

On amended page 3:

line 5, after “diagram” insert --of Figure 1--;
line 15, replace “again” with --in Figure 2--; and
line 16, replace “the” with --a--.

On amended page 4:

line 5, delete "to be";
after line 7, as a separate line before line 8, insert the following
heading: /

20 --SUMMARY OF THE INVENTION--;
line 8, replace "the" (first occurrence) with --an--
line 13, delete "therefore";

replace lines 19-26 and insert the following:

--According to an aspect of the present invention, a method for adjusting tilting of a broadband optical signal transmitted via an optical conductor through injecting pump signals into the optical conductor
5 includes first injecting of first pump signal into the optical conductor. The first pump signal has a wavelength less than a minimum wavelength of the optical signal. Next, a second pump signal is injected into the optical conductor having a second wavelength greater than a maximum wavelength of the optical signal and a wavelength spacing relative to a
10 mean wavelength of the optical signal that is different from the first pump signal. Finally, wavelength and levels of the first and second pump signals are selected such that the optical signal has a predetermined tilting.

According to another aspect of the present invention, a method for adjusting tilting of an optical signal transmitted via an optical conductor through injecting a plurality of pump signals into the optical conductor includes transmitting a plurality of transmission bands via the optical conductor. Signal levels of each of the plurality of transmission bands are measured and at least one pump signal is injected from the plurality of pump signals into the optical conductor when a prescribed condition and a signal level of at least one of the measured signal levels of the plurality of transmission bands occurs. Also, a level of the at least one pump signal is selected such that the tilting of the transmission band in which the prescribed condition does not occur remains at least
20 substantially constant at a receiving end of the optical conductor.
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According to yet a further aspect of the present invention, an apparatus is provided for adjusting tilting and level of an optical signal including at least two pump lasers that inject respective pump signals into

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the optical conductor including a first pump laser configured to inject a first pump signal having a first wavelength that is less than a minimum wavelength of the optical conductor and a second pump laser configured to inject a second pump signal having a second wavelength that is greater than a maximum wavelength of the optical conductor. Also, the second pump laser is configured to inject the second pump signal having a wavelength spacing relative to a mean wavelength of the optical signal that is different from the first pump signal. The wavelength and levels of the first and second pump signals are selected such that the optical signal has a prescribed tilting and a prescribed level.

According to another aspect of the present invention, an apparatus for adjusting tilting and level of an optical signal transmission via an optical conductor includes at least two pump lasers that inject respective pump signals into the optical conductor. Also, a controller is provided to measure signal levels of at least two transmission bands and adjust a power level of at least one of the respective pump signals when a prescribed condition occurs such that the tilting of a transmission band in which the prescribed condition does not occur remains at least substantially constant at a receiving portion of the optical conductor.--;

line 27, replace "The" with --An--;
line 31, replace ", for example" with --(e.g.,--; and replace "," (second occurrence) with --)--; and
line 36, delete "/or".

On amended page 5:

line 4, before "tilting" insert --with--;
line 32, replace "which" with --that--; and
line 37, delete "be".

On amended page 6:

line 7, after "order" insert --to--; and before "use" delete "to";

line 14, replace "expedient" with --advantageous--;

line 16, delete "/or";

5 line 18, after "favorable" insert --,--; and delete "-";

line 19, after "realize" insert --,--; and delete "-";

replace lines 23-25 with the following:

--Additional advantages and novel features of the invention will

be set forth, in part, in the description that follows and, in part, will

10 become apparent to those skilled in the art upon examination of the following or may be learned by practice of the invention. The advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

15 BRIEF DESCRIPTION OF THE DRAWINGS

Reference is made to the attached drawings, wherein elements having the same reference numeral designations represent similar elements throughout and wherein:

Figure 1 graphically illustrates the effects of stimulated Ramon scattering for a blue transmission band;

Figure 2 graphically illustrates the effect of stimulated Ramon scattering for a red transmission band;--;

line 27, replace "," with --,--;

line 29, replace ", and" with --,--; and

25 line 30, replace "," with --,--.

On amended page 7:

5

line 2, replace "," with --;--;

line 4, replace "," with --;--;

line 7, replace "," with --;--;

line 9, delete ",";

line 10, delete "exemplary"; and after "embodiment" insert --;--;

after line 12, as a separate line before line 13, insert the following heading:

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--;

10

line 14, replace ", for example" with --(e.g.,--;

line 15, replace ", which" with --that--;

line 24, replace "which" with --that--;

line 25, after "conductor" insert --LW--; and replace "with" with -- having--;

15

line 26, replace "which" with --that--;

line 27, delete ","; and

line 29, before "Figure" insert --see e.g.,--.

On amended page 9:

20

lines 13-14, replace "A corresponding statement hold for blue pump lasers." with --Similarly, this principle also applies to blue pump lasers in a corresponding manner.--;

line 16, after "end" insert --according to another embodiment--;

line 23, replace "which" with --that--;

line 24, after "controller" insert --ST--;

25

line 25, replace "part" with --device R--;

line 31, replace ", for example" with --(e.g.,--; and

line 33, after "LW" (first occurrence) insert --)--.

On amended page 10:

line 1, replace "Provided" with --A first pump laser PL1 is provided--; delete "-"; and before "or" insert --(--;

5 line 3, after "amplifiers" insert --)--; and delete "- is a first pump laser PL1"; and

line 4, replace "which" with --that--.

On amended page 11:

line 3, replace "firstly" with --first--;

10 line 11, after "laser" insert --,--;

line 19, replace "K3" with --K4--;

line 20, replace "K4" with --K3--;

line 28, delete "-"; and before "this" insert --(--;

line 30, after "R" insert --)--; delete "-"; and after "PL1" delete ",";

15 and

line 34, after "end" insert --(i.e., PL1).

On amended page 12:

line 5, replace "ones" with --figures--;

20 line 7, before "are" insert --, respectively,--; and after "by" insert -- corresponding--;

line 8, delete "corresponding";

line 10, replace "thereby" with --this arrangement--;

line 19, after "unit" insert --KE--;

line 32, after "signal" insert --,--; and delete "-"; and